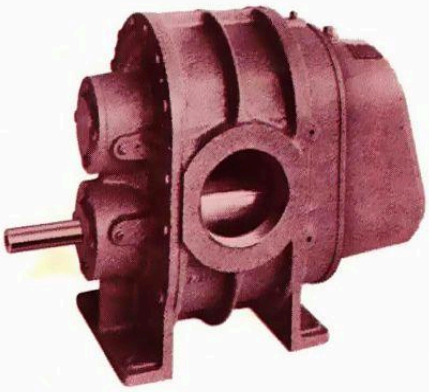
BULLETIN S-59S

SUTORBILT



CALIFORNIA SERIES

ROTARY
POSITIVE
BLOWERS
GAS AND
VACUUM
PUMPS

Advantages of Sutorbilt Units

A METERED QUANTITY OF AIR

The Sutorbilt blower or gas pump is a positive displacement, constant volume machine designed to operate against varying pressures. There is no guesswork as to the quantity of delivered air or gas from a Sutorbilt blower. With each revolution, the blower delivers a metered amount of air measured at inlet conditions. Operating at a constant speed against a constant pressure, the blower delivers a constant amount of air. Increasing the blower speed against a constant pressure increases the volume by an amount equal to the displacement of the blower times the increased number of revolutions.

JOB ENGINEERED HORSEPOWER

Should on-the-job pressure requirements be less than originally calculated, the Sutorbilt rotary positive blower automatically adjusts to the operating job pressure. There is no horsepower sacrificed because of overestimated pressure needs. A rotary positive blower need not be ported for a specific pressure. The only restriction it has to overcome is the actual line pressure. It adapts itself immediately to changes in operating conditions avoiding costly generation of unnecessarily high pressures.

HIGH VOLUMETRIC EFFICIENCY AND LOW MECHANICAL FRICTION

Sutorbilt rotary positive blowers are built to the closest tolerances by highly skilled personnel operating the finest of modern machine tools. Since rotary positive blowers require no internal lubrication or seal, the volumetric efficiency is a direct function of good castings, highly accurate machining and the best in assembly methods. The only mechanical friction encountered in a rotary positive blower is in the timing gears and bearings. This friction is minimized by the use of anti-friction bearings and wide face precision timing gears.

ANTI-FRICTION BEARINGS

All Sutorbilt rotary positive blowers are equipped with heavy duty, anti-friction bearings. These bearings are over-sized for longer life and low mechanical friction. Anti-friction bearings allow reversible shaft rotation for extra versatility. This feature is especially important in tunnel ventilation, allowing the blower to be used both to supply ventilation air to the face of the tunnnel and to exhaust blasting fumes by simply reversing the rotation of the blower. Anti-friction bearings have an advantage over the older sleeve type bearings in that they do not wear allowing the impeller clearances to change as a result of this wear. A Sutorbilt blower retains factory clearances at all times.

FLEXIBILITY

Sutorbilt rotary positive blowers are available in a complete range of sizes and types to give the customer the most compact and economical unit possible. Although cast iron is standard, blowers and pumps constructed of other metals are available for applications in which cast iron is unsuitable. The drive shaft is extended for direct connection to the motor, or gear reducer, or to accommodate a multiple V-drive. Units may be assembled with either right or left hand shaft extension. Vertical units with the shafts parallel in a vertical plane are available to facilitate piping and drive lay-out.

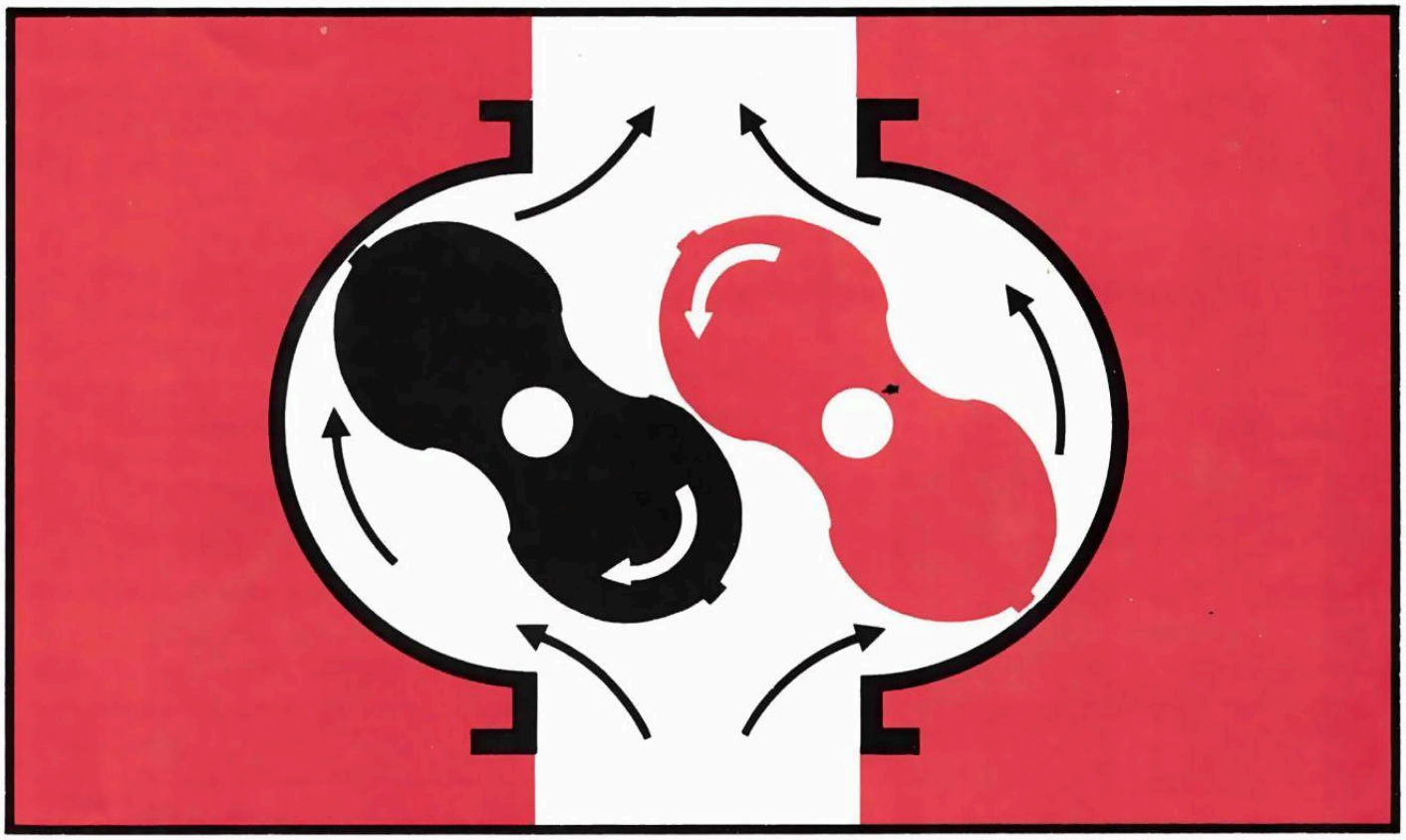
CLEAN AIR

One of the principal advantages of the rotary positive blower and gas pump is that the absence of friction in the impeller chamber makes internal lubrication unnecessary. This permits the delivery of gas or air free from contaminating lubricants. It is an especially valuable feature in chemical processing and material agitation applications that require minimum contamination.

MANUFACTURING

Sutorbilt blowers are engineered and manufactured by capable and experienced personnel in a modern plant with the latest tooling and equipment. Production is controlled by close inspection, tests and attention to the smallest detail. Reliable field service is maintained by factory trained personnel. Conveniently located repair shops are available with an inventory of spare parts. Sutorbilt blowers and vacuum pumps range in capacity up to 23,000 cfm. You are invited to request information on sizes not covered in this bulletin.

OPERATING PRINCIPLES



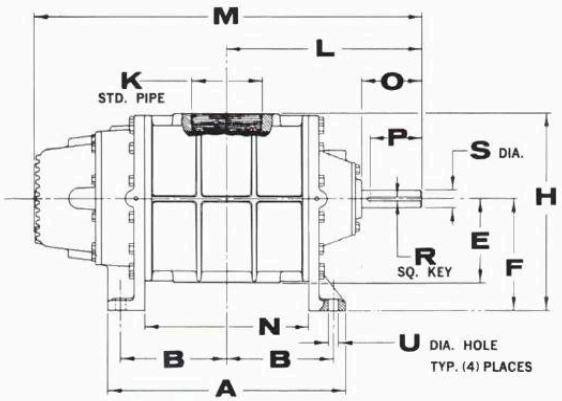
The Sutorbilt blower has two figure eight impellers rotating in opposite directions. As each lobe of an impeller passes the blower inlet, it traps a quantity of air equal to exactly one-fourth the displacement of the blower. This entrapment occurs four times per revolution, moving the entrained air around the case to the blower outlet. Timing gears accurately position the impellers in relation to each other, maintaining the minute clearances so vital to the high volumetric efficiency of the rotary positive blower. Because the blower operates with very close internal tolerances, a slight amount of air escapes past the operating clearances back to the suction side of the blower. This leakage, defined as "slip", is a predictable constant volume for any given blower at any given pressure. For ease in calculation, this leakage is expressed in blower rpm. A standard slip, based on handling air at standard condition, has been established for each blower size. For gases having a specific gravity other than 1.0, the slip will vary and this must be taken into consideration when calculating total operating speed of the unit.

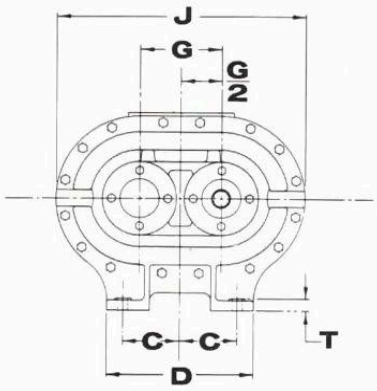
The Sutorbilt blower is built with the closest possible tolerances to give the highest volumetric efficiency. Every Sutorbilt blower is tested for this high volumetric efficiency and slip test reports which become a part of a permanent file are available upon request.

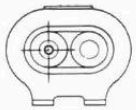
CALIFORNIA SERIES

Horizontal Blowers

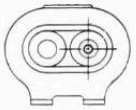
dimensions







LHC
LEFT HAND CENTRAL
(OPTIONAL ASSEMBLY)



RHC
RIGHT HAND CENTRAL
(STANDARD ASSEMBLY)

CENTER TIMED FOR ROTATION IN EITHER DIRECTION

SIZE	Connections	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	R	S	T	U
2M	S	5	2	2	5 1/2	3	3 3/4	2 3/4	6 3/4	8 3/4	1	5 5/32	9 7/16	2	2 3/8	1 3/8	3/16	.625	1/4	3/8
2L	S	7	3	2	5 1/2	3	3 3/4	2 3/4	6 3/4	8 3/4	2	6 5/32	11 7/16	4	2 3/8	1 3/8	3/16	.625	1/4	3/8
3H	S	6 3/4	2 5/8	2 7/8	7 1/4	3 13/16	5	3 1/2	8 13/16	11 1/8	1 1/4	5 13/16	11 5/16	2 3/4	2 7/16	1 23/32	3/16	.750	7/16	7/16
3M	S	7 5/8	3 1/16	2 7/8	7 1/4	3 13/16	5	3 1/2	8 13/16	11 1/8	2	6 1/4	12 3/16	3 5/8	2 7/16	1 23/32	3/16	.750	7/16	7/16
3L	S	10 1/4	4 3/8	2 7/8	7 1/4	3 13/16	5	3 1/2	8 13/16	11 1/8	2 1/2	7 9/16	14 13/16	6 1/4	2 7/16	1 23/32	3/16	.750	7/16	7/16
4H	S	7 1/4	3	3	7 1/2	4 3/16	6 1/4	4	10 7/16	12 3/8	1 1/2	6 7/8	13 9/16	3 1/4	2 5/8	1 19/32	1/4	.875	3/8	7/16
4M	S	9 1/2	4 1/8	3	7 1/2	4 3/16	6 1/4	4	10 7/16	12 3/8	2 1/2	8	15 13/16	5 1/2	2 5/8	1 19/32	1/4	.875	3/8	7/16
4L	S	12	5 3/8	3	7 1/2	4 3/16	6 1/4	4	10 7/16	12 3/8	3	9 1/4	18 3/8	8	2 11/16	1 19/32	1/4	.875	3/8	7/16
5H	S	8 1/2	3 1/2	3 1/2	9	5 1/8	7	5	12 1/8	15 1/4	2 1/2	8 3/16	16 15/16	4	2 15/16	1 27/32	1/4	1.125	3/4	5/8
5M	S	10 1/2	4 1/2	3 1/2	9	5 1/8	7	5	12 1/8	15 1/4	4	9 3/16	18 15/16	6	2 15/16	1 27/32	1/4	1.125	3/4	5/8
5L	S	14 1/2	6 1/2	3 1/2	9	5 3/16	7	5	12 3/16	15 1/4	4	11 3/16	22 15/16	10	2 15/16	1 27/32	1/4	1.125	3/4	5/8
6H	S	9 3/4	3 7/8	4	11	6	8 3/4	6	14 3/4	18	2 1/2	9 3/16	18 15/16	4 3/4	3	1 27/32	3/8	1.375	3/4	11/16
6M	S	13	5 1/2	4	11	6	8 3/4	6	14 3/4	18	5	10 13/16	22 3/16	8	3	1 27/32	3/8	1.375	3/4	11/16
6L	F	20	9	4	11	7 1/2	8 3/4	6	16 1/4	18	6	14 5/16	29 3/16	15	3	1 27/32	3/8	1.375	3/4	11/16
7H	S	11 1/2	4 5/8	5 1/2	15	9 11/16	11	7	20 11/16	22	4	10	20 3/16	5 1/2	3 1/2	2 13/32	3/8	1.562	9/16	3/4
7M	F	17	7 3/8	5 1/2	15	8 1/2	11	7	19 1/2	22	6	12 3/4	25 11/16	11	3 1/2	2 13/32	3/8	1.562	9/16	3/4
7L	F	24	10 7/8	5 1/2	15	8 1/2	11	7	19 1/2	22	8	16 1/4	32 11/16	18	3 1/2	2 13/32	3/8	1.562	9/16	3/4
8H	S	13 3/4	5 3/4	6	16	10	12 1/2	8	22 1/2	25 1/4	4	11 11/16	24 1/16	6 1/2	3 15/16	2 29/32	3/8	1.750	1	3/4
8M	F	19 1/4	8 1/2	6	16	10	12 1/2	8	25 3/4	25 1/4	6	14 7/16	29 9/16	12	3 15/16	2 29/32	3/8	1.750	1	3/4
8L	F	27 1/4	12 1/2	6	16	10	12 1/2	8	25 3/4	25 1/4	8	18 7/16	37 9/16	20	3 15/16	2 29/32	3/8	1.750	1	3/4

S—Screwed Connections Std. NPT
F—Flange Connection Std. Pipe.
Intake & Outlet Pipe Connections Same Type and Size.

CALIFORNIA SERIES
Horizontal Blowers

Clean Air
Metered Quantity of Air
Constant Volume at Variable Pressure

Application

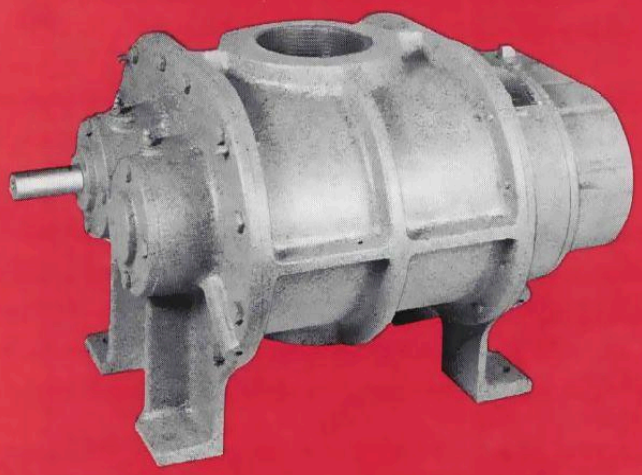
Like all Sutorbilt equipment, California Series blowers are precision-engineered for maximum effectiveness and well built for long, trouble-free service. This series is designed for continuous service to deliver air at pressures up to 12 psi within each gear size and speed.

Construction

Impellers are machined from cast iron to an exact involute shape and are permanently fastened to steel shafts. They are balanced to operate without vibration.

Headplates are machined from cast iron and ground on the interior surface to exact operating tolerances. Bearing fits are machined into the headplates to assure exact bearing positioning.

Impeller cases are machined from cast iron, heavily ribbed to prevent distortion.



Anti-Friction Bearings are used exclusively. Smaller sizes are fitted with ball bearings; larger sizes are equipped with roller bearings. All are self-centering on an axial plane to allow impellers to accurately position themselves between headplates.

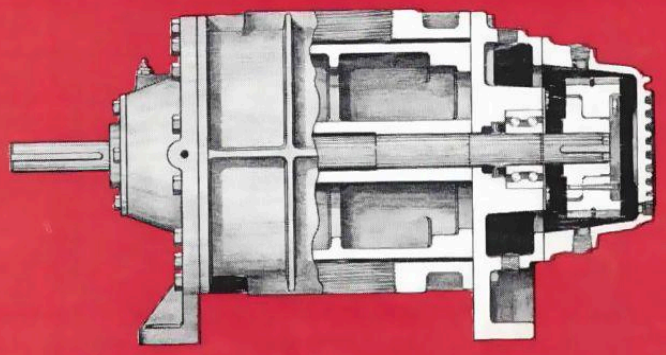
Timing Gears are accurately cut from steel and bolted to timing hub on sizes 5″ through 8″ gear diameters. Gears without timing hubs are used on smaller size units.

Lubrication

Timing gears and gear end bearings are oil-splash lubricated from an **oil tight housing** surrounding the timing gears. Drive end bearings are grease lubricated through fittings. Lip-type seals prevent oil and grease from entering the impeller chamber.

Drive Shaft

The drive shaft is extended for V-belt drive; for direct connection, the addition of a kit-type thrust bearing is required. Vertical and horizontal shaft arrangement is available in all sizes.

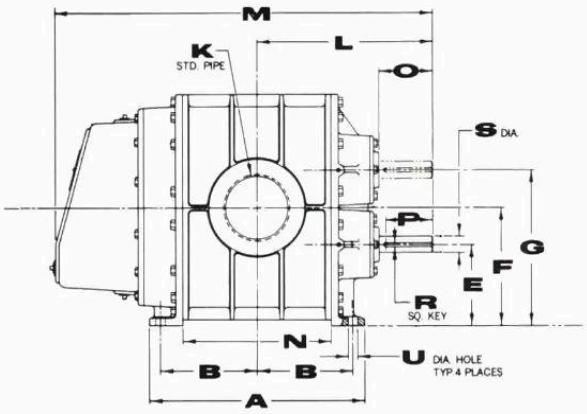


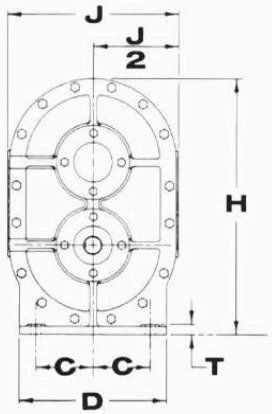
Performance

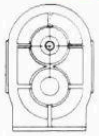
For ratings, capacities and sizes available, refer to performance chart on page 10.

CALIFORNIA SERIES
Vertical Blowers

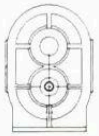
dimensions







THC
TOP HAND CENTRAL
(OPTIONAL ASSEMBLY)



BHC
BOTTOM HAND CENTRAL
(STANDARD ASSEMBLY)

CENTER TIMED FOR ROTATION IN EITHER DIRECTION

SIZE	Connections	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	R	S	T	U
2MV	S	5	2	1 1/2	5	3 1/2	4 7/8	6 1/4	9 1/4	6	1	5 5/32	10 7/8	2	2 3/8	1 3/8	3/16	.625	1/4	3/8
2LV	S	7	3	1 1/2	5	3 1/2	4 7/8	6 1/4	9 1/4	6	2	6 5/32	12 7/8	4	2 3/8	1 3/8	3/16	.625	1/4	3/8
3HV	S	6 3/4	2 5/8	2 1/2	6 1/2	4 1/2	6 1/4	8	11 13/16	7 5/8	1 1/4	5 13/16	12 13/16	2 3/4	2 7/16	1 23/32	3/16	.750	1/2	7/16
3MV	S	7 5/8	3 1/16	2 1/2	6 1/2	4 1/2	6 1/4	8	11 13/16	7 5/8	2	6 1/4	13 11/16	3 5/8	2 7/16	1 23/32	3/16	.750	1/2	7/16
3LV	S	10 1/4	4 3/8	2 1/2	6 1/2	4 1/2	6 1/4	8	11 13/16	7 5/8	2 1/2	7 9/16	16 5/16	6 1/4	2 7/16	1 23/32	3/16	.750	1/2	7/16
4HV	S	7 1/4	3	3	7 1/2	4 1/2	6 1/2	8 1/2	12 11/16	8 3/8	1 1/2	6 7/8	15 3/16	3 1/4	2 5/8	1 19/32	1/4	.875	1/2	7/16
4MV	S	9 1/2	4 1/8	3	7 1/2	4 1/2	6 1/2	8 1/2	12 11/16	8 3/8	2 1/2	8	17 7/16	5 1/2	2 5/8	1 19/32	1/4	.875	1/2	7/16
4LV	S	12	5 3/8	3	7 1/2	4 1/2	6 1/2	8 1/2	12 11/16	8 3/8	3	9 1/4	20	8	2 11/16	1 19/32	1/4	.875	1/2	7/16
5HV	S	8 1/2	3 1/2	3 1/2	9	5 1/2	8	10 1/2	15 5/8	10 1/4	2 1/2	8 3/16	18 13/16	4	2 15/16	1 27/32	1/4	1.125	5/8	5/8
5MV	S	10 1/2	4 1/2	3 1/2	9	5 1/2	8	10 1/2	15 5/8	10 1/4	4	9 3/16	20 13/16	6	2 15/16	1 27/32	1/4	1.125	5/8	5/8
5LV	S	14 1/2	6 1/2	3 1/2	9	5 1/2	8	10 1/2	15 5/8	10 3/8	4	11 3/16	24 13/16	10	2 15/16	1 27/32	1/4	1.125	5/8	5/8
6HV	S	9 3/4	3 7/8	4	11	8 3/4	11 3/4	14 3/4	20 3/4	12	2 1/2	9 3/16	21 5/16	4 3/4	3	1 27/32	3/8	1.375	5/8	11/16
6MV	S	13	5 1/2	4	11	8 3/4	11 3/4	14 3/4	20 3/4	12	5	10 13/16	24 9/16	8	3	1 27/32	3/8	1.375	5/8	11/16
6LV	F	20	9	4	11	8 3/4	11 3/4	14 3/4	20 3/4	15	6	14 5/16	31 9/16	15	3	1 27/32	3/8	1.375	5/8	11/16
7HV	S	11 1/2	4 5/8	5 1/2	14	11	14 1/2	18	25 1/2	19 3/8	4	10	23 5/16	5 1/2	3 1/2	2 13/32	3/8	1.562	5/8	3/4
7MV	F	17	7 3/8	5 1/2	14	11	14 1/2	18	25 1/2	17	6	12 3/4	28 3/4	11	3 1/2	2 13/32	3/8	1.562	5/8	3/4
7LV	F	24	10 7/8	5 1/2	14	11	14 1/2	18	25 1/2	17	8	16 1/4	35 3/4	18	3 1/2	2 13/32	3/8	1.562	5/8	3/4
8HV	S	13 3/4	5 3/4	6	16	12 1/2	16 1/2	20 1/2	29 1/8	20	4	11 11/16	27 5/16	6 1/2	3 15/16	2 29/32	3/8	1.750	3/4	3/4
8MV	F	19 1/4	8 1/2	6	16	12 1/2	16 1/2	20 1/2	29 1/8	20	6	14 7/16	32 13/16	12	3 15/16	2 29/32	3/8	1.750	3/4	3/4
8LV	F	27 1/4	12 1/2	6	16	12 1/2	16 1/2	20 1/2	29 1/8	20	8	18 7/16	40 13/16	20	3 15/16	2 29/32	3/8	1.750	3/4	3/4

S—Screwed Connections Std. NPT
F—Flange Connection Std. Pipe.
Intake & Outlet Pipe Connections Same Type and Size.

CALIFORNIA SERIES
Vertical Blowers

Clean Air
Metered Quantity of Air
Constant Volume at Variable Pressure

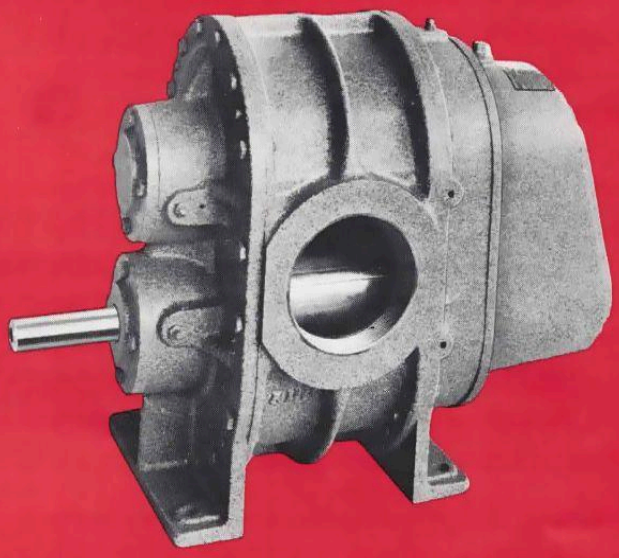
CALIFORNIA VERTICAL BLOWERS

To accommodate positioning and varying requirements, California Series blowers are also available in vertical design. The same high standards of workmanship and top quality materials that are characteristic of all Sutorbilt equipment are built into the vertical series. Material specifications, construction, lubrication and application data are identical to California Series horizontal blowers described on page 5. **Vertical blower dimensions appear on page 6.**

CALIFORNIA SERIES B BLOWERS

- For higher speeds — greater outputs

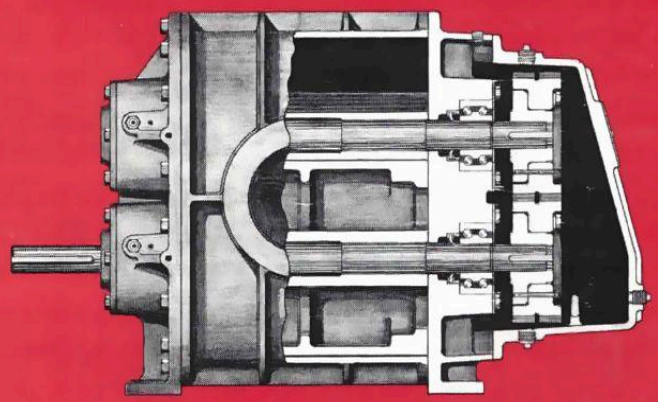
Special features added to California Series blowers provide Series B units with higher maximum speed ratings and greater outputs than are available in the standard series line. Important changes are the addition of thrust control on the drive shaft permitting V-belt or direct connect drive and dynamically balanced impellers for operation at high speeds. Except for these modifications, Series B units are identical to construction and design of the standard California line and are available in the same gear diameters and case lengths in vertical or horizontal design. **Performance ratings of this series blower appear on page 11.**



CALIFORNIA SERIES XB GAS PUMP

- Guaranteed non-contamination of product

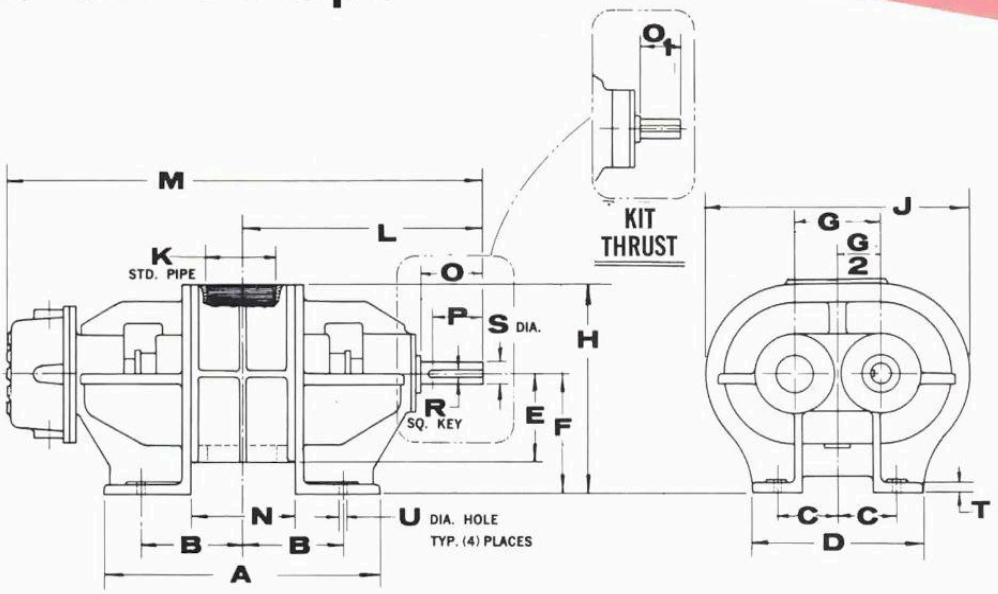
Special packing glands isolate lubricated parts of the California Series XB gas pump from any contact with the gas or air handled and provide an excellent seal for gas pumping and vacuum service. This construction permits the use of mechanical seals, J-M Clipper seals or non-lubricated packing where required for critical applications. The California XB gas pumps will handle gas or air at pressures up to 10 psi or vacuum up to 20″ hg. gauge. They are designed for continuous service at the rated pressures and speeds. The drive shaft is extended for V-belt drive; for direct connection the addition of thrust control is required. Horizontal shaft arrangement is standard although all sizes are available in vertical construction on special order. **California Series XB gas pump dimensions appear on page 8. Performance data on page 10.**



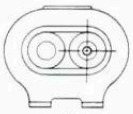
CALIFORNIA SERIES

XB Gas Pumps

dimensions



LHC
LEFT HAND CENTRAL
(OPTIONAL ASSEMBLY)



RHC
RIGHT HAND CENTRAL
(STANDARD ASSEMBLY)

CENTER TIMED FOR ROTATION IN EITHER DIRECTION

SIZE	Connections	A	B	C	D	E	F	G	H	J	K	L	M	N	O	O_1	P	R	S	T	U
2MXB	S	8	3	2	5 1/2	3	3 3/4	2 3/4	6 3/4	8 3/4	1	7 15/16	15 9/16	2	2 3/32	1 25/32	1 3/8	3/16 x 3/32	.625	5/16	3/8
2LXB	S	10	4	2	5 1/2	3	3 3/4	2 3/4	6 3/4	8 3/4	2	8 15/16	17 9/16	4	2 1/2	1 25/32	1 3/8	3/16 x 3/32	.625	5/16	3/8
3HXB	S	9 3/4	3 3/8	2 7/8	7 1/4	3 13/16	5	3 1/2	8 13/16	11 1/8	1 1/4	8 13/16	17 9/16	2 3/4	2 7/16	1 27/32	1 29/32	3/16 x 3/32	.750	1/2	7/16
3MXB	S	10 5/8	3 13/16	2 7/8	7 1/4	3 13/16	5	3 1/2	8 13/16	11 1/8	2	9 1/4	18 7/16	3 5/8	2 7/16	1 27/32	1 29/32	3/16 x 3/32	.750	1/2	7/16
3LXB	S	13 1/4	5 1/8	2 7/8	7 1/4	3 13/16	5	3 1/2	8 13/16	11 1/8	2 1/2	10 9/16	20 13/16	6 1/4	2 7/16	1 27/32	1 29/32	3/16 x 3/32	.750	1/2	7/16
4HXB	S	11 1/4	4 1/8	3	7 1/2	4 3/16	6 1/4	4	10 7/16	12 3/8	1 1/2	10 3/8	21 15/16	3 1/4	2 11/16	2 7/8	1 19/32	1/4 x 1/8	.875	5/8	7/16
4MXB	S	13 1/2	5 1/4	3	7 1/2	4 3/16	6 1/4	4	10 7/16	12 3/8	2 1/2	11 1/2	24 3/16	5 1/2	2 11/16	2 7/8	1 19/32	1/4 x 1/8	.875	5/8	7/16
4LXB	S	16	6 1/2	3	7 1/2	4 3/16	6 1/4	4	10 7/16	12 3/8	3	12 3/4	26 11/16	8	2 11/16	2 7/8	1 19/32	1/4 x 1/8	.875	5/8	7/16
5HXB	S	14	5	3 1/2	10	5 1/8	7	5	12 1/8	15 1/4	2 1/2	12 5/16	25 3/16	4	2 15/16	2 1/16	1 27/32	1/4 x 1/8	1.125	5/8	5/8
5MXB	S	16	6	3 1/2	10	5 1/8	7	5	12 1/8	15 1/4	4	13 5/16	27 3/16	6	2 15/16	2 1/16	1 27/32	1/4 x 1/8	1.125	5/8	5/8
5LXB	S	20	8	3 1/2	10	5 1/8	7	5	12 1/8	15 1/4	4	15 5/16	31 3/16	10	2 15/16	2 1/16	1 27/32	1/4 x 1/8	1.125	5/8	5/8
6HXB	S	16 3/4	5 3/8	4	12	6	8 3/4	6	14 3/4	18	2 1/2	13 3/4	28 5/16	4 3/4	3	2 3/16	1 27/32	3/8 x 3/16	1.375	7/8	11/16
6MXB	S	20	7	4	12	6	8 3/4	6	14 3/4	18	5	15 3/8	31 9/16	8	3	2 3/16	1 27/32	3/8 x 3/16	1.375	7/8	11/16
6LXB	F	27	10 1/2	4	12	9	7 1/2	6	16 1/4	18	6	18 7/8	39 1/16	15	3	2 3/16	1 27/32	3/8 x 3/16	1.375	7/8	11/16
7HXB	S	17 1/2	6 1/4	5 1/2	15	9 11/16	11	7	20 11/16	22	4	17	33	5 1/2	4 15/16	3 3/4	3 7/8	3/8 x 3/16	1.562	7/8	3/4
7MXB	F	23	9	5 1/2	15	8 1/2	11	7	19 1/2	22	6	19 3/4	38 1/2	11	4 15/16	3 3/4	3 7/8	3/8 x 3/16	1.562	7/8	3/4
7LXB	F	30	12 1/2	5 1/2	15	8 1/2	11	7	19 1/2	22	8	23 1/4	45 1/2	18	4 15/16	3 3/4	3 7/8	3/8 x 3/16	1.562	7/8	3/4
8HXB	S	18 1/2	6 1/4	6	16	10	12 1/2	8	22 1/2	25 1/4	4	18 3/4	36 3/8	6 1/2	5 3/4	4 11/16	4 3/4	3/8 x 3/16	1.750	1 1/8	3/4
8MXB	F	24	9	6	16	10	2 1/2	8	25 3/4	25 1/4	6	21 1/2	41 7/8	12	5 3/4	4 11/16	4 3/4	3/8 x 3/16	1.750	1 1/8	3/4
8LXB	F	32	13	6	16	10	12 1/2	8	25 3/4	25 1/4	8	25 1/2	49 7/8	20	5 3/4	4 11/16	4 3/4	3/8 x 3/16	1.750	1 1/8	3/4

S—Screwed Connections Std. NPT
F—Flange Connection St. Pipe.
Intake & Outlet Pipe Connections Same Type and Size.
Thrust Kit Optional Equipment.

CALIFORNIA SERIES

a type and size to meet your requirements

"V" BELT DRIVE

Simplicity of design, high standards of workmanship and top quality engineering have made Sutorbilt blowers an overwhelming choice where this type of equipment is needed. In addition to offering the finest blowers, gas pumps and vacuum pumps, optional equipment is available like the sturdy fabricated base, V-belt drive and guard which have been added to the blower illustrated at right.

TWO-STAGE PACKAGES

Sutorbilt blowers and gas pumps can be conveniently staged to provide clean air at pressure differentials up to 22 psi. Note the clean arrangement of equipment using two horizontal assemblies and a common drive motor. This photo shows special sanitary base.

DIRECT DRIVE

Where oil free air is required for critical material aeration, blending, conveying, chemical processing, or instrument control, Sutorbilt gas pump design is the answer. A compact, durable combination is illustrated showing a standard gas pump directly connected to an electric motor.

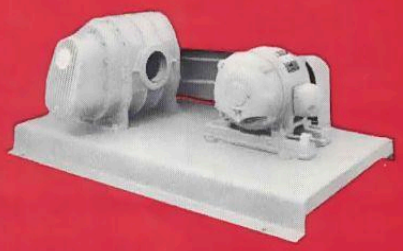
ACCESSORY EQUIPMENT IN STOCK

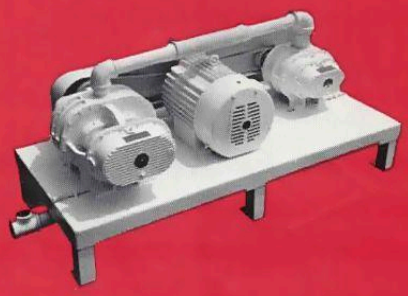
Typical accessories for your complete package are available from our stock:

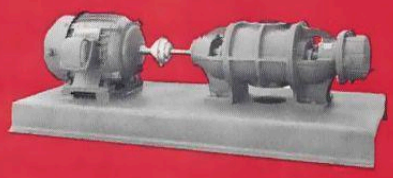
Standard and engineered bases
Drive couplings
Belt drives
Drive guards
Flexible pipe connections
Weighted pressure relief valves
Spring loaded pressure relief valves
Spring loaded vacuum relief valves
Inlet filter silencers
Discharge silencers
Swing check valves
Electric motors

There's a Sutorbilt blower for every need!

by Sutorbilt







Write for literature on other Sutorbilt models

PERFORMANCE DATA

California Series Blowers

Capacities and Horsepower Based on Standard Air at Inlet

LOW PRESSURE UNITS

SIZE	DIA. INLET & OUTLET	DISP. CU. FT. REV.	SHIPPING WT. (APPROX.)	RPM	.5 PSI		1 PSI		2 PSI		3 PSI		4 PSI	
					CFM	HP	CFM	HP	CFM	HP	CFM	HP	CFM	HP
2L / 2LV	2" S	.035	36#	2080	61	.4	56	.6	50	.9	45	1.2	40	1.6
				2350	71	.4	66	.6	59	1.0	54	1.4	50	1.8
				2770	85	.4	81	.7	74	1.1	69	1.6	64	2.0
3L / 3LV	2½" S	.104	87	1640	150	.6	141	1.0	129	1.8	120	2.6	112	3.4
				1850	172	.5	163	1.1	151	2.0	142	2.9	134	3.9
				2180	206	.7	198	1.3	186	2.4	176	3.4	168	4.5
4L / 4LV	3" S	.170	138	1430	216	.8	205	1.4	189	2.5	177	3.7	167	4.8
				1620	248	.9	237	1.5	221	2.8	209	4.1	199	5.2
				1910	298	1.0	286	1.7	271	3.3	258	4.8	248	6.2
5L / 5LV	4" S	.350	248	1150	370	1.2	357	2.1	338	4.0	324	5.7	312	7.6
				1300	423	1.3	410	2.4	391	4.5	376	6.5	364	8.6
				1530	503	1.5	490	2.7	471	5.1	457	7.6	445	10.2
6L / 6LV	6" F	.718	520	950	630	1.8	608	3.4	578	6.5	554	9.7	534	12.9
				1080	723	2.0	701	3.9	671	7.4	647	11.0	628	14.7
				1270	860	2.4	838	4.5	807	8.6	784	13.0	764	17.3
7L / 7LV	8" F	1.20	794	820	920	2.5	894	4.9	857	9.3	828	14.0	804	18.7
				930	1052	2.8	1026	5.3	989	10.6	960	15.9	936	21.2
				1090	1244	3.3	1218	6.2	1181	12.4	1152	18.6	1128	24.8
8L / 8LV	8" F	1.74	1250	710	1153	3.1	1119	5.9	1071	11.7	1033	17.6	1002	23.4
				810	1327	3.5	1293	6.7	1245	13.4	1207	20.0	1176	26.7
				950	1571	4.1	1536	7.8	1488	15.7	1451	23.5	1420	31.3

MEDIUM PRESSURE UNITS

SIZE	DIA. INLET & OUTLET	DISP. CU. FT. REV.	SHIPPING WT. (APPROX.)	RPM	3 PSI		4 PSI		5 PSI		6 PSI		7 PSI	
					CFM	HP	CFM	HP	CFM	HP	CFM	HP	CFM	HP
2M / 2MV	1" S	.017	32#	2080	20	.6	17	.8	15	.9	13	1.1	—	—
				2350	24	.7	22	.9	20	1.1	18	1.2	16	1.4
				2770	31	.8	29	1.0	27	1.2	25	1.4	23	1.7
3M / 3MV	2" S	.060	71	1640	65	1.5	59	2.0	55	2.4	51	2.9	47	3.4
				1850	77	1.7	72	2.2	67	2.7	63	3.3	59	3.8
				2180	97	2.0	92	2.6	87	3.2	83	3.8	79	4.4
4M / 4MV	2½" S	.117	112	1430	119	2.5	111	3.3	104	4.1	98	4.9	93	5.6
				1620	141	2.8	133	3.7	127	4.6	121	5.4	115	6.3
				1910	175	3.3	167	4.3	160	5.3	154	6.4	149	7.4
5M / 5MV	4" S	.210	212	1150	189	3.5	181	4.7	174	5.7	167	6.9	161	8.0
				1300	221	4.0	212	5.2	205	6.5	199	7.8	193	9.1
				1530	269	4.7	261	6.1	254	7.6	247	9.1	241	10.7
6M / 6MV	5" S	.383	382	950	289	5.2	278	6.9	268	8.6	259	10.4	250	12.1
				1080	339	5.9	328	7.8	317	9.8	308	11.8	300	13.7
				1270	412	6.9	400	9.2	390	11.5	381	13.8	373	16.1
7M / 7MV	6" F	.733	661	820	504	8.6	489	11.4	476	14.3	464	17.1	453	20.0
				930	585	9.7	570	13.0	556	16.2	544	19.4	533	22.6
				1090	702	11.4	687	15.2	674	18.9	662	22.7	651	26.5
8M / 8MV	6" F	1.04	986	710	612	10.5	592	14.0	575	17.5	559	21.0	545	24.5
				810	716	12.0	696	16.0	679	20.0	663	24.0	649	28.0
				950	861	14.1	842	18.7	824	23.4	809	28.1	794	32.8

HIGH PRESSURE UNITS

SIZE	DIA. INLET & OUTLET	DISP. CU. FT. REV.	SHIPPING WT. (APPROX.)	RPM	6 PSI		7 PSI		8 PSI		9 PSI		10 PSI	
					CFM	HP	CFM	HP	CFM	HP	CFM	HP	CFM	HP
3H / 3HV	1¼" S	.045	67#	1640	37	2.1	34	2.5	31	2.8	—	—	—	—
				1850	46	2.4	43	2.8	40	3.2	38	3.6	—	—
				2180	61	2.8	53	3.3	55	3.7	53	4.2	50	4.7
4H / 4HV	1½" S	.069	98	1430	53	2.8	49	3.3	46	3.7	—	—	—	—
				1620	66	3.2	62	3.7	59	4.2	56	4.8	—	—
				1910	86	3.8	82	4.4	79	5.0	76	5.6	73	6.3
5H / 5HV	2½" S	.140	192	1150	108	4.5	103	5.3	99	6.1	95	6.9	92	7.6
				1300	129	5.2	124	6.0	120	6.9	116	7.8	113	8.6
				1530	161	6.1	156	7.1	152	8.1	149	9.1	145	10.2
6H / 6HV	2½" S	.227	345	950	147	6.1	141	7.2	136	8.2	131	9.2	127	10.2
				1080	176	7.0	171	8.1	166	9.3	161	10.5	156	11.6
				1270	220	8.2	214	9.6	209	10.9	204	12.3	200	13.7
7H / 7HV	4" S	.367	513	820	220	8.6	214	10.0	208	11.4	202	12.8	196	14.3
				930	260	9.7	254	11.3	248	12.9	242	14.6	237	16.2
				1090	319	11.4	313	13.3	307	15.2	301	17.1	296	19.0
8H / 8HV	4" S	.566	810	710	290	11.4	281	13.3	273	15.2	265	17.1	258	19.1
				810	347	13.0	338	15.2	330	17.4	322	19.6	315	21.7
				950	426	15.3	417	17.8	409	20.4	401	22.9	394	25.5

"S" indicates screwed, "F" indicates flanged connections.

PERFORMANCE DATA

California Series "B" Blowers

Capacities and Horsepower Based on Standard Air at Inlet

LOW PRESSURE UNITS

SIZE	DIA. INLET & OUTLET	DISP. CU. FT. REV.	SHIPPING WT. (APPROX.)	RPM	.5 PSI		1 PSI		2 PSI		3 PSI		4 PSI	
					CFM	HP	CFM	HP	CFM	HP	CFM	HP	CFM	HP
2LB / 2LVB	2" S	.035	36#	2860	89	.4	84	.7	77	1.2	72	1.6	67	2.1
				3240	102	.5	97	.7	90	1.3	85	1.8	81	2.4
				3810	122	.5	117	.8	110	1.5	105	2.1	101	2.7
3LB / 3LVB	2½" S	.104	87	2250	213	.8	205	1.3	193	2.4	184	3.5	176	4.6
				2550	245	.8	236	1.5	224	2.7	215	4.0	207	5.0
				3000	291	.9	283	1.7	271	3.2	262	4.6	254	5.9
4LB / 4LVB	3" S	.170	138	1970	308	1.0	297	1.8	281	3.4	269	5.0	258	6.4
				2230	352	1.1	341	2.0	325	3.8	313	5.4	303	7.2
				2620	418	1.3	407	2.3	391	4.4	379	6.3	369	8.4
5LB / 5LVB	4" S	.350	248	1580	521	1.5	508	2.8	489	5.2	474	7.9	462	10.5
				1790	594	1.7	581	3.2	562	5.9	548	8.9	536	11.9
				2100	703	1.9	690	3.7	671	7.0	656	10.5	644	13.9
6LB / 6LVB	6" F	.718	520	1310	888	2.4	867	4.7	836	8.9	812	13.4	793	17.8
				1490	1018	2.7	996	5.1	965	10.1	942	15.2	922	20.1
				1750	1204	3.2	1183	6.0	1152	11.9	1128	17.9	1109	23.8
7LB / 7LVB	8" F	1.20	794	1130	1292	3.4	1266	6.4	1229	12.9	1200	19.3	1176	25.7
				1280	1472	3.8	1446	7.3	1409	14.6	1380	21.8	1356	29.1
				1500	1736	4.5	1710	8.5	1673	17.1	1644	25.6	1620	34.1
8LB / 8LVB	8" F	1.74	1250	930	1623	4.2	1589	8.1	1540	16.2	1503	24.3	1472	32.3
				1110	1849	4.8	1815	9.2	1767	18.3	1729	27.5	1698	36.6
				1310	2197	5.4	2163	10.8	2115	21.6	2077	32.4	2046	43.2

MEDIUM PRESSURE UNITS

SIZE	DIA. INLET & OUTLET	DISP. CU. FT. REV.	SHIPPING WT. (APPROX.)	RPM	3 PSI		4 PSI		5 PSI		6 PSI		7 PSI	
					CFM	HP	CFM	HP	CFM	HP	CFM	HP	CFM	HP
2MB / 2MVB	1" S	.017	32#	2860	33	.8	31	1.0	28	1.3	26	1.5	25	1.7
				3240	39	.9	37	1.1	35	1.4	33	1.7	31	1.9
				3810	49	1.0	47	1.3	45	1.6	43	1.9	41	2.3
3MB / 3MVB	2" S	.060	71	2250	101	2.0	96	2.7	91	3.3	87	3.9	83	4.6
				2550	119	2.3	114	3.0	109	3.7	105	4.5	101	5.1
				3000	146	2.7	141	3.5	136	4.4	132	5.1	128	6.0
4MB / 4MVB	2½" S	.117	112	1970	182	3.4	174	4.5	168	5.5	161	6.6	156	7.7
				2230	212	3.8	205	5.1	198	6.2	192	7.4	186	8.5
				2620	258	4.5	250	5.8	244	7.3	238	8.7	232	10.2
5MB / 5MVB	4" S	.210	212	1580	279	4.8	271	6.3	264	7.9	258	9.4	252	11.0
				1790	323	5.4	315	7.1	308	8.9	302	10.7	296	12.3
				2100	389	6.3	380	8.4	373	10.5	367	12.5	361	14.6
6MB / 6MVB	5" S	.383	382	1310	427	7.1	416	9.5	406	11.9	396	14.3	388	16.7
				1490	496	8.1	485	10.8	475	13.5	465	16.2	457	18.9
				1750	596	9.5	584	12.7	574	15.9	565	19.1	556	22.2
7MB / 7MVB	6" F	.733	661	1130	731	11.8	716	15.7	703	19.6	691	23.6	680	27.4
				1280	841	13.3	826	17.8	813	22.2	801	26.6	790	31.1
				1500	1002	15.6	987	20.9	974	26.1	962	31.3	951	36.5
8MB / 8MVB	6" F	1.04	986	980	892	14.5	873	19.3	856	24.2	840	29.0	826	33.5
				1110	1025	16.4	1008	21.9	991	27.4	975	32.8	961	38.3
				1310	1236	19.4	1216	25.8	1199	32.3	1183	38.8	1169	45.2

HIGH PRESSURE UNITS

SIZE	DIA. INLET & OUTLET	DISP. CU. FT. REV.	SHIPPING WT. (APPROX.)	RPM	7 PSI		8 PSI		9 PSI		10 PSI		12 PSI	
					CFM	HP	CFM	HP	CFM	HP	CFM	HP	CFM	HP
3HB / 3HVB	1¼" S	.045	67#	2250	61	3.4	58	3.8	56	4.3	53	4.8	--	--
				2550	75	3.8	72	4.4	69	4.9	67	5.4	--	--
				3000	95	4.5	92	5.1	90	5.8	87	6.4	83	7.7
4HB / 4HVB	1½" S	.069	98	1970	87	4.5	83	5.2	80	5.8	77	6.4	--	--
				2230	105	5.1	101	5.8	98	6.6	95	7.3	--	--
				2620	131	6.0	128	6.9	125	7.7	122	8.6	116	10.3
5HB / 5HVB	2½" S	.140	192	1580	163	7.3	159	8.4	156	9.4	152	10.5	146	12.6
				1790	193	8.3	189	9.5	185	10.7	182	11.9	175	14.3
				2100	236	9.8	232	11.2	228	12.5	225	13.9	218	16.7
6HB / 6HVB	2½" S	.227	345	1310	223	9.9	218	11.3	213	12.7	209	14.1	200	16.9
				1490	264	11.2	259	12.8	254	14.4	250	16.0	241	19.2
				1750	323	13.2	318	15.1	313	17.0	309	18.8	300	22.6
7HB / 7HVB	4" S	.367	513	1130	327	13.8	321	15.7	316	17.7	310	19.7	300	23.6
				1280	382	15.6	376	17.8	371	20.0	365	22.3	355	26.7
				1500	463	18.3	457	20.9	451	23.5	446	26.1	436	31.3
8HB / 8HVB	4" S	.566	810	980	434	18.4	426	21.0	418	23.7	411	26.3	397	31.6
				1110	508	20.9	500	23.8	492	26.7	484	29.8	471	35.7
				1310	621	24.6	613	28.1	605	31.6	598	35.2	584	42.2

"S" indicates screwed, "F" indicates flanged connections.

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